## Integrated Stereo Amplifier

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TA-S2

#### **WARNING**

### To prevent fire or shock hazard, do not expose the unit to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

#### Welcome!

Thank you for purchasing the Sony Integrated stereo amplifier. Before operating the unit, please read this manual thoroughly and retain it for future reference.

You can connect the TA-S2 and these other components to make a stereo system.

TA-S2 (This unit)
TC-S1 (Stereo Cassette deck)
CDP-S1 (Compact disc player)
ST-S1 (Tuner)
SS-B1S (Speaker)



Features for this system are listed below.

#### **Features for this System**

You can use the functions below by connecting the supplied audio bus cable to the AU BUS jacks of each components and AC cord to the mains of each components.

- Have the power turn on automatically when the power of the TA-S2 turns on
- Have the input selector on the TA-S2 set to the each source position automatically when an each play button presses.
- Control this system from a distance with the remote commander.

To set up this system, see page 5.

#### **Features for TA-S2**

- Source direct switch is employed to reproduce high fidelity sound.
- Remote commander RM-S1 that lets you control this system.
- MOS FET power transistor for the final stage assures high power output and fine sound.

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## Chapter 1 Connecting the System

### EN

#### **Before you Begin**

#### **Notes on Installation**

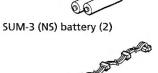
- Place the unit in a location with adequate air circulation to prevent internal heat build up in the unit.
- Do not install the unit:
- near heat sources such as radiators or air ducts.
- in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.
- in an inclined position.
- on a rug or other soft surfaces that would block the ventilation holes on the bottom of the unit.

#### **Checking the Supplied Accessories**

Make sure that all supplied accessories are included with your unit. This manual and the following item must be included with your unit.



Remote commander RM-S1 (1)



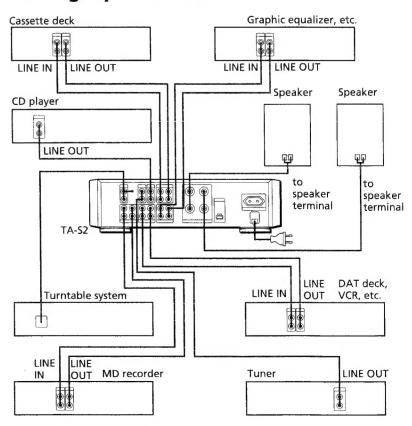
Audio bus cable (1)

Do not throw away the carton or the packing material. They will come in handy when transporting the unit or shipping it for servicing.

#### Note on connection

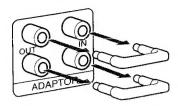
- Turn off the power of each unit before making connections. Connect the mains lead last.
- Be sure to insert the plugs firmly into the jacks. Loose connection may cause hum and noise.
- Leave a little slack in the connecting cord to allow for inadvertent shock or vibration.
- The audio cord plug is colour coded. The red plug is for right channel (R) and the white one for the left channel (L).

#### **Connecting Input Sources**



#### Note on the ADAPTOR jacks

Before connecting the components, remove the shorting plugs.



When not using the ADAPTOR jacks, be sure to install the shorting plugs. Otherwise, no sound will be heard from the speakers.

#### Setting Up this System

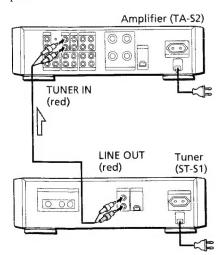
You must connect audio cords, audio bus cable, and the mains for setting up this system.

#### **Connecting Audio Cords**

The plates around the jacks of this unit are colour-coded to the jack plates of the other components. By connecting the audio cords of each component to the jacks having the same colour plates, you can set up this system easily and correctly.

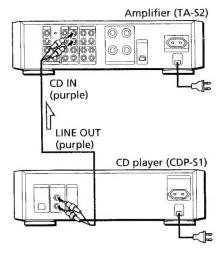
#### **Connecting a Tuner**

Connect the plugs to the jacks having a red plate.



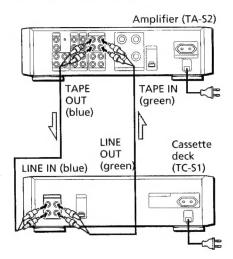
#### Connecting a CD Player

Connect the plugs to the jacks having a purple plate.



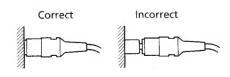
#### **Connecting a Tape Player**

Connect the plugs to the jacks having the same colour (blue or green) plate.



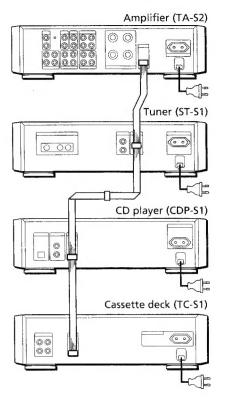
#### Note on connecting the audio cord

Connect the audio cord firmly as illustrated below:



### Connecting the Audio Bus Cable

Connect the supplied audio bus cable to the AU BUS connectors by pushing it.



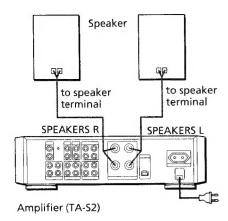
#### Note

There are five plugs on the audio bus cable. One plug is for future use, such as connecting an optional MD recorder, etc.

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#### **Connecting Speakers**

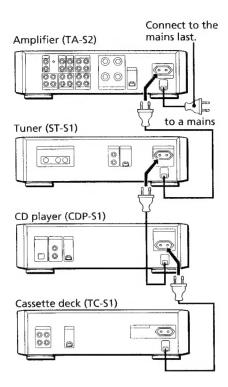


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#### **Connecting the Mains**

Turn on the components except for TA-S2 after connecting the mains.

The power will turn on/off automatically when the power of the TA-S2 turns on/off.



#### **Detaching the Side Panels**

If you choose to remove the side panels from the unit, do not reinsert the side panel screws into the cabinet holes. Use the shorter M3  $\times$  6 screws (supplied) instead. For safety's sake, disconnect the AC power cord from the AC outlet before inserting the M3  $\times$  6 screws into the cabinet holes.

## Inserting the Batteries

Insert two size AA (R6) batteries into the supplied remote commander for remote control.

1 Slide the lid to remove it.



**2** Insert two size AA (R6) batteries. Match the + and - to the diagram in the battery compartment.



**3** Slide the lid to replace it.

#### Battery life

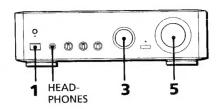
You can expect the remote commander to operate for about six months (using Sony SUM-3 (NS) batteries) before the batteries run down. When the batteries have run down so the commander no longer works properly, replace both the batteries with new ones.

#### To avoid battery leakage

If you are not going to use the commander for a long time, remove the batteries to avoid damage caused by corrosion from battery leakage.

## Chapter 2 Using Your Amplifier

#### Listening to a Programme Source



- 1 Press POWER. ON/STANDBY indicator flashes in red, then lights in green.
- **2** Turn on the desired source.
- **3** Set the FUNCTION control referring the following table.

Sound source to be listened to	FUNCTION	
Digital audio taped programme or visual source	DAT/VIDEO	
Mini disc programme	MD	
Taped programme	TAPE	
CD programme	CD	
Radio programme	TUNER	
Record programme	PHONO	

- **4** Play the selected programme source. For details, refer to the instruction manuals of each equipment.
- **5** Turn ATTENUATOR to adjust the volume level.

#### Note

Turn down the sound level before switching on the unit.

This will prevent damage to the speakers.

#### For private listening

Connect a pair of headphones to the HEADPHONES jack. No sound will be heard from the speakers.

#### **Adjusting the Tone Quality**

To increase bass or treble sound, turn the BASS or TREBLE control clockwise. To decrease them, turn the control counterclockwise.

#### Adjusting the Balance

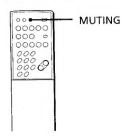
When the position of the speakers is not symmetrical, the relative strength of the right and left speaker outputs will be unbalanced.

Adjust the balance with the BALANCE control.

#### When Listening to the Source without any Audio Effects

Press the SOURCE DIRECT button. The indicator lights and the circuits of the BASS control, TREBLE control, and BALANCE control are disengaged regardless of the setting of the switches.

#### To Mute the Sound



For muting, you must use the supplied remote commander.

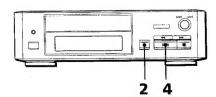
Press MUTING while playing. The sound is muted, and the indicator on the ATTENUATOR of the main unit flashes.

#### To resume muting

Press MUTING again.
Or, press ATTENUATOR + button on the remote commander.

## Listening to a CD with CDP-S1

You can listen to a CD as below by setting up this system with CDP-S1.

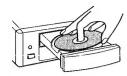


- **1** Press POWER on the TA-S2. The power of all the connected components turn on.\*
- **3** Place a disc. Place a disc with the printed side up on the tray.

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**Chapter 2: Using Your Amplifier** 

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When you play an 8 cm (3-inch) CD, place it on the inner circle of the tray.

- **4** Press ►**11**. The disc tray closes and the first track starts playing.
- \* You can turn on/off the power by pressing SYSTEM POWER switch on the remote commander RM-S1 once you have turned on the TA-S2.

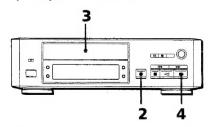
То	Press	
Stop play		
Pause	<b>⊳</b> 10	
Resume play	>00	
Remove the CD	<b>A</b>	

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For details, see the CDP-S1 operation manual.

## Listening to a Tape with TC-S1

You can listen to a tape as below by setting up this system with TC-S1.



- 1 Press POWER on the TA-S2. The power of all the connected components turn on\*.
- 3 Place a cassette.
  Place a cassette on the cassette tray with the desired side facing up.



4 Press ⊳.

The cassette tray closes and the tape starts playing.

\* You can turn on/off the power by pressing SYSTEM POWER switch on the remote commander RM-S1 once you have turned on the TA-S2.

#### To choose single-side or dual-side play

PJ	
To play	Switch DIRECTION to
One side of the tape	-
Both sides	→ or ←

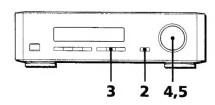
#### Other operations

Press
■ PAUSE
■ PAUSE or > or <
►► for upper side  ✓ for reverse side
★ for upper side     ★ for reverse side
슬

For details, see the TC-S1 operation manual.

#### Listening to the Radio with ST-S1

You can listen to the radio as below by setting up this system with ST-S1.



- 1 Press POWER on the TA-S2. The power of all the connected components turn on.
- 2 Press BAND SELECT repeatedly until the band you want appears in the display.

Each time you press BAND SELECT, the band changes as follows:

European models: German and FM → MW → LW Italian models: FM → AM

- Press TUNING MODE repeatedly until "AUTO" appears in the display. Each time you press TUNING MODE, the tuning mode changes as follows: AUTO → PRESET → (No indication)
- 4 Turn TUNING/SELECT.
  The tuner start scanning radio frequencies automatically, and stops when it finds a clear station. "TUNED" appears in the display window. "STEREO" also appears if the FM station tuned is broadcast in stereo.
- 5 If you don't want to listen to the station selected, turn TUNING/SELECT to restart the scan.
- \* You can turn on/off the power by pressing SYSTEM POWER switch on the remote commander RM-S1 once you have turned on the TA-S2.

#### When the desired station is not tuned in - manual tuning

Automatic tuning may skip the station weak signal. Tune in the station manually.

- 1 Press TUNING MODE repeatedly until no indication appears on the display.
- 2 Turn TUNING/SELECT to the left or right side until the desired station is tuned in.

#### When an FM programme is not received clearly

Press STEREO/MONO so that "MONO" appears in the display. There will be no stereo effect, but the reception will improve. Press STEREO/MONO again to restore the stereo effect

For details, see the ST-S1 operation manual.

# Chapter 3 For Your Information

#### **Precautions**

If you have any questions or problems connecting your stereo system, please consult your nearest Sony dealer.

#### On safety

- Operate the unit only on 220 230 V AC, 50/60 Hz.
- Should any solid object or liquid fall into the component, unplug the stereo system and have it checked by qualified personnel before operating it any further.
- Unplug the system from the wall outlet (mains) if it is not to be used for an extended period of time. To disconnect the cord (mains lead), pull it out by the plug. Never pull the cord itself.
- Do not block the ventilation holes on the bottom of the unit. The ventilation holes must be unobstructed for proper operation of the unit and to prolong the life of its components.
- The unit is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the unit itself has been turned off.
- AC power cord must be changed only at the qualified service shop.

#### To prevent internal heat buildup in the unit

Place the unit in a location with adequate air circulation.

#### Maintenance

#### On cleaning the cabinet

Clean the cabinet and control with a soft cloth lightly moistened with a mild detergent solution. Do not use abrasive pads, scouring powder, or solvents such as alcohol or benzine.

## Troubleshooting Guide

If you run into any problem using the stereo, use the following check list. And first check the following points:

- The power cord is connected firmly.
- The speakers are connected correctly and firmly.

Should any problem persist after you have made the checks below, consult your nearest Sony dealer.

#### There is no sound.

→ The power is not turned on.

- The FUNCTION control is not correctly set.
- The MUTING button on the remote commander is pressed. Press MUTING again.
- The shorting plugs are not connected. (see page 5.)
- → Turn ATTENUATOR clockwise.
- → The headphones are connected. Disconnect them.

## There is no sound from one channel or unbalanced left and right sound level.

- → Incorrect setting of the BALANCE control.
- → Check the speaker connections of the inoperative channel.

#### BASS, TREBLE, and BALANCE controls do not function.

→ The indicator on the SOURCE DIRECT button lights up. Press SOURCE DIRECT to turn off the indicator.

#### There is no sound and the STANDBY indicator lights in red.

- → Short circuit of speaker cords. Check the speaker cords.
- → The amplifier is overheated. Install it in a place where there is good air circulation.

#### Bass is lacking or the location of the musical instruments is apparently imprecise.

- → Adjust the sound quality controls.
- → Check the speaker connection for proper phasing.

#### Sound is distorted.

- Check the equipment being played. For details, refer to the instruction manual of the equipment.
- Input capacity of speakers is excessively small. Lower the sound level.

#### There is severe hum or noise.

- → A TV or VCR is too close to the stereo system Move the stereo system away from the TV or VCR.
- → The connection of turntable system is faulty.

#### The remote commander does not function.

- → The batteries have run down. Replace both batteries.
- → There is an obstacle between the remote commander and the system. Remove the obstacle.
- → Point the commander head toward the amplifier.
- → Audio bus cable is removed. Connect it correctly and firmly.

#### **Specifications**

#### **Amplifier selection**

Continuous RMS power output

(German model)

40 + 40 watts (4 ohms at 1 kHz,

48 + 48 watts (4 ohms at 1 kHz,

5 % THD)

(other models)

40 + 40 watts (6 ohms at 1 kHz,

DIN)

50 + 50 watts (6 ohms at 1 kHz,

5 % THD)

Music power output

(German model)

100 + 100 watts (4 ohms at 1

kHz, 10 % THD)

(other models)

85 + 85 watts (6 ohms at 1 kHz,

10 % THD)

Total harmonic distortion

0.01% at rated 15 W 1 kHz

output

Residual noise

Less than 150 µV, 6 ohms,

Network A

Frequency response

PHONO MM (20 Hz - 20 kHz):

RIAA equalization curve ±0.5

TUNER, CD, TAPE, MD, DAT/

VIDEO, ADAPTOR IN: 10 Hz -

50 kHz 3dB

Input sensitivity

PHONO: MM, 2.5 mV, 50

kilohms

TUNER, CD, TAPE, MD, DAT/

VIDEO, ADAPTOR IN: 150

mV, 50 kilohms

Maximum input capability (1 kHz)

PHONO: MM, 150 mV at 1 kHz

S/N (network)

PHONO: 85 dB(A) (SOURCE

DIRECT ON)

CD: 100 dB(A) (SOURCE

DIRECT ON)

Output voltage impedance

TAPE, MD, DAT/VIDEO,

ADAPTOR: 150 mV, 2 kilohms

HEADPHONES: 25 milliwatts

at 8 ohms, Accepts low and

high impedance headphones.

Tone controls

BASS: ±7 dB at 100 Hz

TREBLE: ±6 dB at 10 kHz

#### General

System

Pure-complementary SEPP

MOS FET power amplifier

Power requirements

220 - 230 V AC, 50/60 Hz

Power consumption

(German model) 90 W

(other models) 85 W

Mains

1 switched, 175 W max.

Dimensions

Approx.  $310 \times 90 \times 360 \text{ mm}$  (12)  $1/4 \times 35/8 \times 141/4$  inches) (w/h/d)

Mass

Approx. 5.5 kg (12 lb 2 oz)

Supplied accessories

Remote commander RM-S1 (1)

Sonv SUM-3 (NS) (2)

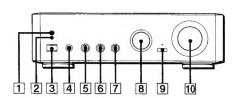
Audio bus cable (1)

The above values are mesured at 230 V AC. (Models for European countries.)

Design and specifications are subject to change without notice.

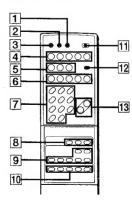
#### **Index to Parts and** Controls

#### Front Panel



- 1 Remote sensor
- ON/STANDBY indicator (7)
- POWER switch (7)
- 4 HEADPHONES jack (7)
- 5 BASS control (7)
- 6 TREBLE control (7)
- 7 BALANCE control (7)
- 8 FUNCTION control (7)
- 9 SOURCE DIRECT control (7)
- 10 ATTENUATOR control (7)

#### **Remote Commander**



- 1 MUTING button (7)
- 2 SOURCE DIRECT button
- 3 FUNCTION button Each time you press FUNCTION, the function changes as follows:  $DAT/VIDEO \rightarrow MD \rightarrow TAPE \rightarrow CD \rightarrow$ TUNER  $\rightarrow$  PHONO  $\rightarrow$ ...

- 4 Cassette deck operating buttons
  - (reverse side play)
  - (upper side play)
  - (stop)

√ fast leftward / rightward) (AMS\*)

5 Tuner operating buttons

SHIFT: Each time you press SHIFT, the letter (A - C) changes as follows:

 $A \rightarrow B \rightarrow C \rightarrow ...$ 

PRESET -/+: Press - or + to select the

number (0 - 9).

6 CD operating buttons (play)

II (pause)

(stop)

**I** (AMS\*)

- 7 Tuner/CD numeric buttons
- 8 Tape control buttons
  - REC (recording)
  - O REC MUTE (recording mute)
  - II (pause)
- 9 CD control buttons

CHECK: Press the button to check the programme.

CLEAR: Press the button to erase a specific track.

CONTINUE: Press the button to play tracks continuously.

SHUFFLE: Press the button to play tracks in random order.

PROGRAM: Press the button to play

tracks in the desired order. REPEAT: Press the button to play tracks repeatedly.

TIME: Press the button to change the time to be displayed.

10 MD control buttons

(play)

II (pause)

(stop)

**I I I** (AMS\*)

- 11 SYSTEM POWER switch (8)
- 12 TUNER/CD switch 13 ATTENUATOR +/- buttons

\*AMS: Automatic Music Sensor